APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,759	10/09/2001	Stephen D. Rank	IMM142	7035

7590   12/19/2002

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EXAMINER
BELL, PAUL A

ART UNIT	PAPER NUMBER
2675	

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

		Application No.	Applicant(s)
Office Action Summary		09/974,759	RANK, STEPHEN D.
		Examiner	Art Unit
		PAUL A BELL	2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 October 2001</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,10,11,19-21,27 and 28</u> is/are rejected.

7)☒ Claim(s) <u>2-9,12-18 and 22-26</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____ .

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

     a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4,5,6</u> .   6)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 1, 10, 11, 19, 20, 21, 27 and 28 are rejected under 35 U.S.C. 102(a) as being anticipated by Chang et al. (6,285,351).

With regard to claim 1 Chang et al. teaches a method for triggering haptic sensations from sound features detected in sound output from a computer (figure 1, item 12), said haptic sensations able to be delivered to a user of a haptic feedback device (figure 1, item 14) in communication with said computer (figure 1, items 24 and 25), the method comprising: storing a portion of sound data that is output to a user as audio from an application program running on said computer, wherein said portion of sound data is stored in a memory buffer of said computer (it is inherent that a computer system item 12 has memory); analyzing said portion of sound data using intelligent heuristics to extract at least one sound feature from said portion of sound data; and triggering the execution of at least one haptic effect based on said at least one sound feature (figure 8, item 512), wherein said at least one haptic effect is commanded to said haptic feedback device approximately correlated to said output of said portion of sound data to said user as audio, said haptic effect causing a haptic sensation to be output to said user (column 2, lines 29-67, column 3, lines 1-40, and column 15, lines 1-39)

With regard to claim 10 Chang et al. teaches a method as recited in claim 1 wherein said at least one haptic effect triggered by said at least one sound feature was previously mapped to said at least one sound feature (column 15, lines 32-38).

With regard to claim 11 Chang et al. teaches a method for providing haptic effects based on sound data played by a computer (figure 1, item 12), said haptic effects able to be output as haptic sensations to a user of a haptic feedback device (figure 1, item 14) in communication with said computer (figure 1, items 24 and 25), the method comprising; storing a portion of said sound data that is output from an application program running on said computer, wherein said portion of sound data is stored in a memory buffer of said computer (it is inherent that a computer system item 12 has memory); analyzing said portion of sound data using intelligent heuristics to extract at least one high-level sound feature from said portion of sound data, wherein said at least one high-level sound feature in said portion of sound data has been associated with at least one high-level haptic effect; and commanding said associated at least one haptic effect to be output approximately when said associated sound feature is played by said application program (figure 8, item 512 column 2, lines 29-67, column 3, lines 1-40, and column 15, lines 1-39).

With regard to claim 19 Chang et al. teaches a method as recited in claim 11 wherein said commanded at least one haptic effect is output as a haptic sensation to said user by said haptic feedback device (column 15, lines 32-38).

With regard to claim 20 Chang et al. teaches a method as recited in claim 11 wherein said commanded haptic effect is not output to said user but is stored in memory of said computer as a created haptic effect (figure 8, items 510 and 511).

With regard to claim 21 Chang et al. teaches a computer readable medium including program instructions for providing haptic sensations correlated with sound output from a computer (figure 1, item 12) to a user of a haptic feedback device (figure 1, item 14) in communication with said computer (figure 1, items 24 and 25), the program instructions performing steps comprising: storing a portion of sound data that is to be output to a user as audio from an application program running on said computer, wherein said sound data is stored in a memory buffer of said computer (it is inherent that a computer system item 12 has memory); analyzing said portion of sound data to extract at least one sound feature from said portion of sound data; and assigning at least one haptic effect to said at least one sound feature, wherein said at least one haptic effect is commanded to said haptic feedback device approximately during said output of said portion of said sound to said user as audio, said haptic effect causing a haptic sensation to be output to said user (figure 8, item 512 column 2, lines 29-67, column 3, lines 1-40, and column 15, lines 1-39).

With regard to claim 27 Chang et al. teaches a computer readable medium as recited in claim 21 wherein said at least one haptic effect commanded to said haptic feedback device was previously mapped to said at least one sound feature (column 15, lines 32-38)..

With regard to claim 28 Chang et al. teaches an apparatus for triggering, haptic sensations from sound features detected in sound output from a computer (figure 1, item 12), said haptic sensations able to be delivered to a user of a haptic feedback device (figure 1, item 14) in communication with said computer (figure 1, items 24 and 25), the apparatus comprising: means for storing a portion of sound data that: is output to a user as audio from an application program running on said computer, wherein said portion of sound data is stored in a memory buffer of said computer (it is inherent that a computer system item 12 has memory); means for analyzing said portion of sound data using intelligent heuristics to extract at least one sound feature from said portion of sound data; and means for triggering the execution of at least one haptic effect based on said at least one sound feature, wherein said at least one haptic effect is commanded to said haptic feedback device approximately correlated to said output of said portion of sound data to said user as audio, said haptic effect causing a haptic sensation to be output to said user (figure 8, item 512 column 2, lines 29-67, column 3, lines 1-40, and column 15, lines 1-39).

Allowable Subject Matter

3.   Claims 2-9, 12-18 and 22-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks
                                                     Washington, D.C. 20231

or faxed to: (703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Paul Bell

Paul Bell
Art unit 2675
7 December 2002

STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600